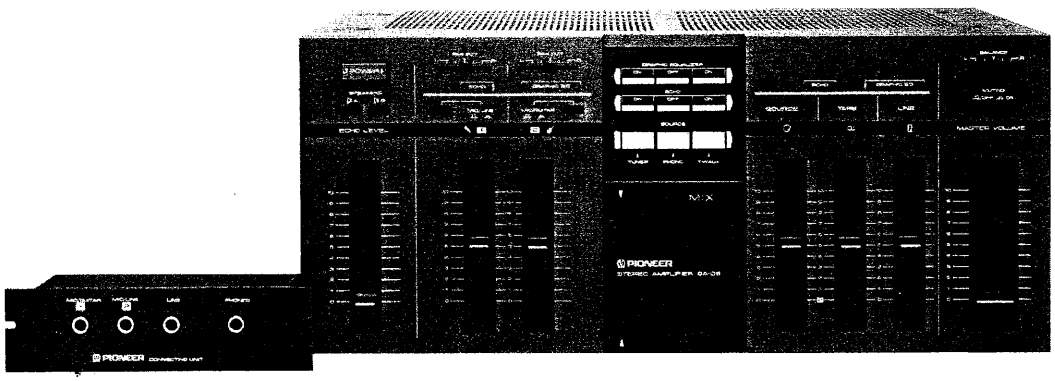
Operating Instructions

STEREO AMPLIFIER

SA-05

S/G



Please read throuth these operating instructions and then you will know how to operate your model properly.
After you have finished reading the instructions, put them away in a safe plase for future reference.

IMPORTANT NOTICE

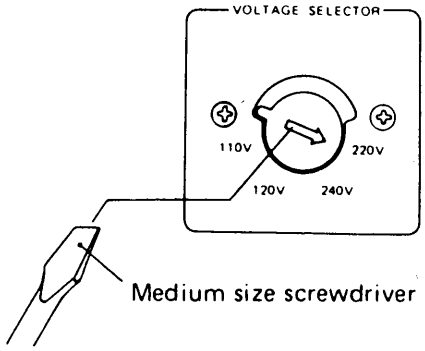
SA-05 is designed to operate from 110V, 120V, 220V or 240V main. Before turning on the power, please confirm the line voltage setting indicated on the rear of your unit corresponds to the supply voltage in your area; if not, change the setting as described in LINE VOLTAGE on page 2.

PIONEER®

VOLTAGE VARIATIONS
For General Export Model(S,S/G)

You will find the line voltage selector switch on rear panel. This switch has positions for 110V, 120V, 220V and 240V power sources. Before your model is shipped from the factory, the switch is set to the power requirements of the destination; nevertheless, you should check that it is set properly before plugging the power cord into the AC outlet. If the voltage is not properly set or if you move to an area where the voltage requirements differ, adjust the selector switch as follows. Before adjusting, disconnect the power cord.

1. Prepare a medium size screwdriver.
2. Insert the screwdriver into the arrow on the voltage selector and adjust so that the tip of the arrow points to the voltage value of your area.



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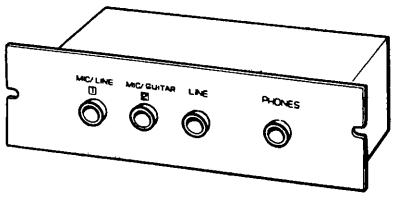
CHECKING OUT THE ACCESSORIES

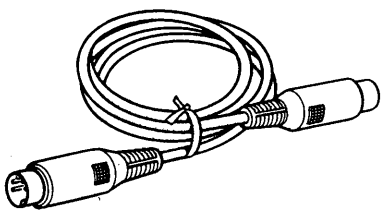
The following parts are supplied as accessories.

CONNECTING UNIT



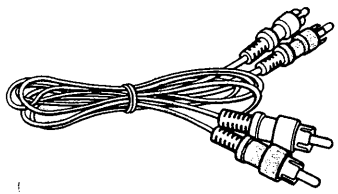
This comes with 3 input terminals – MIC/LINE, MIC/GUITAR and LINE – as well as a PHONES jack. Connect it to the amplifier and refer to page 5 for details.

DIN CORD



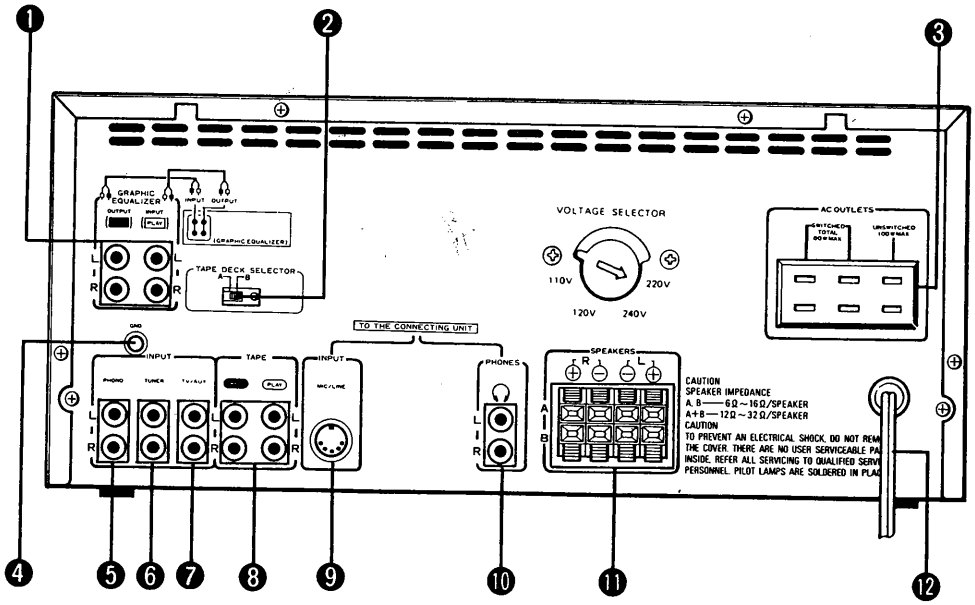
This is used to connect the output terminal of the connecting unit with the input terminal on the amplifier.

CONNECTING CORDS WITH PIN PLUGS



These are used to connect the connecting unit's input terminals with the amplifier's headphones output jacks.

REAR PANEL FACILITIES

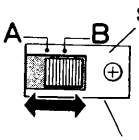


❶ EQUALIZER terminals

Connect the input and output terminals on the graphic equalizer to these terminals.

❷ TAPE DECK selector

A: Set to A for an ordinary tape deck.



B: Set to B for Pioneer's CT-05 double cassette deck.

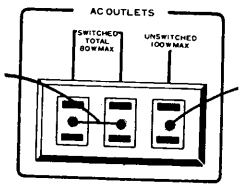
Remove stopper when changing position.

NOTE: This tape deck selector must be set to the proper position. If set incorrectly, not only will recording be impossible but vibration will be caused during playback and this may damage the speakers.

❸ AC OUTLETS

Connect the power cords of the stereo components to these outlets.

The power to the component is switched ON and OFF by the ON/OFF operation of the amplifier's POWER switch.



The amplifier's POWER switch is not related in any way to the power supplied to the components connected here. It is just like an ordinary power outlet.

NOTE: Never connect an electrical appliance (such as a toaster or hair dryer) whose power consumption exceeds the value (in watts) marked on this panel.

❹ GND terminal

Connect the ground wire of the turntable here when a turntable is connected to the amplifier.

❺ PHONO terminals

Connect the output cords of the turntable to these.

❻ TUNER terminals

Connect the output terminals of the stereo tuner to these.

❼ TV/AUX terminals

These are spare terminals for connection to the output cords of a stereo component.

❽ TAPE terminals

Connect the input/output (REC/PLAY) terminals of the tape deck to these.

❾ MIC/LINE terminal

Connect this to the MIC/LINE terminal on the accessory connecting unit.

❿ PHONES jacks

Connect these to the PHONES jacks on the accessory connecting unit.

⓫ SPEAKERS terminals

Connect the speaker systems to these.

A: The speakers connected to these terminals are made operational by the SPEAKERS switch A.

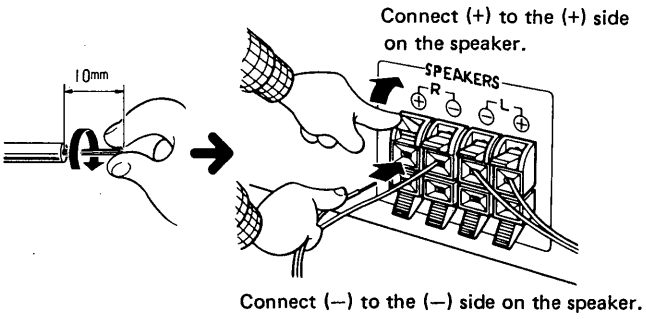
B: The speakers connected to these terminals are made operational by the SPEAKERS switch B.

⓬ Power cord

CONNECTIONS

CONNECTING THE SPEAKER CORDS

1. Peel away the vinyl covering and twist the strands together.
2. Push down the lever and insert the cord into the hole.



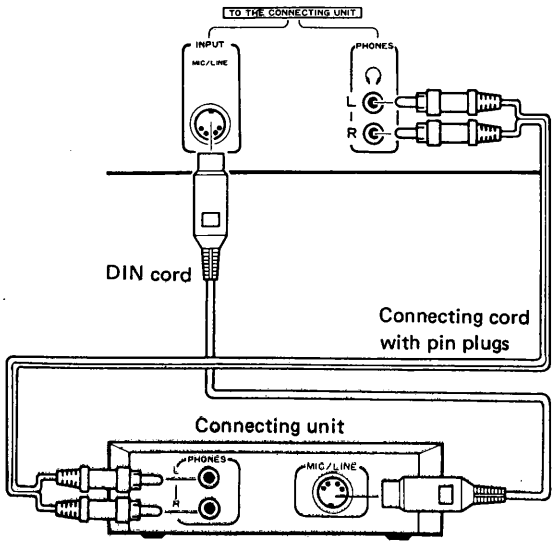
Release the lever and then pull the cord to check that it has been connected properly.

Speaker Impedance

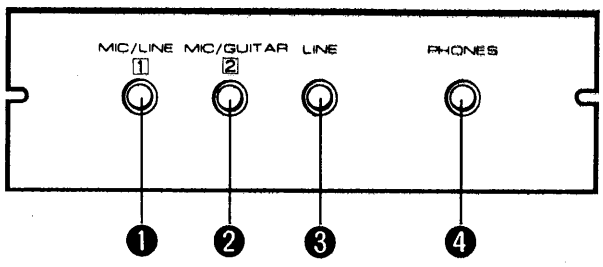
Use speaker systems with an impedance ranging from 6 ohms to 16 ohms. When connecting two pairs of speaker systems for simultaneous use, select models with an impedance of between 12 ohms and 32 ohms. Make a note of the allowable input of a speaker system which is not a model specially designed for this amplifier.

CONNECTING UNIT CONNECTIONS

Connect the amplifier's terminals and the connecting unit using the accessory cord.



CONNECTING UNIT: PARTS AND THEIR FUNCTIONS



❶ MIC/LINE 1 terminal

The output cord of a microphone or electronic musical instrument can be connected here. Adjust the volume using the amplifier's fader control 1 . Set the position of the MIC/LINE selector in accordance with the component which has been connected.

❷ MIC/GUITAR 2 terminal

The output cord of a microphone or electric guitar can be connected here. Adjust the volume using the amplifier's fader control 2 . Set the position of the MIC/GUITAR selector in accordance with the component which has been connected.

❸ LINE terminal

The output cord of an electronic musical instrument can be connected here. Adjust the volume using the amplifier's LINE fader control.

❹ PHONES jack

Connect the headphones plug here.
This comes in handy when monitoring the sound which is being mixed.

SYSTEM CONNECTIONS

In the figure below, this amplifier is connected to the SG-05 graphic equalizer, the TX-05 FM/AM digital synthesized tuner, the CT-05 double cassette deck, the PL-05 turntable, the DT-32 audio timer, the CS-05 speaker systems and the CP-05 speaker bases, and it is housed along with the other components in the CB-05 audio rack.

Make sure that the antenna is connected.

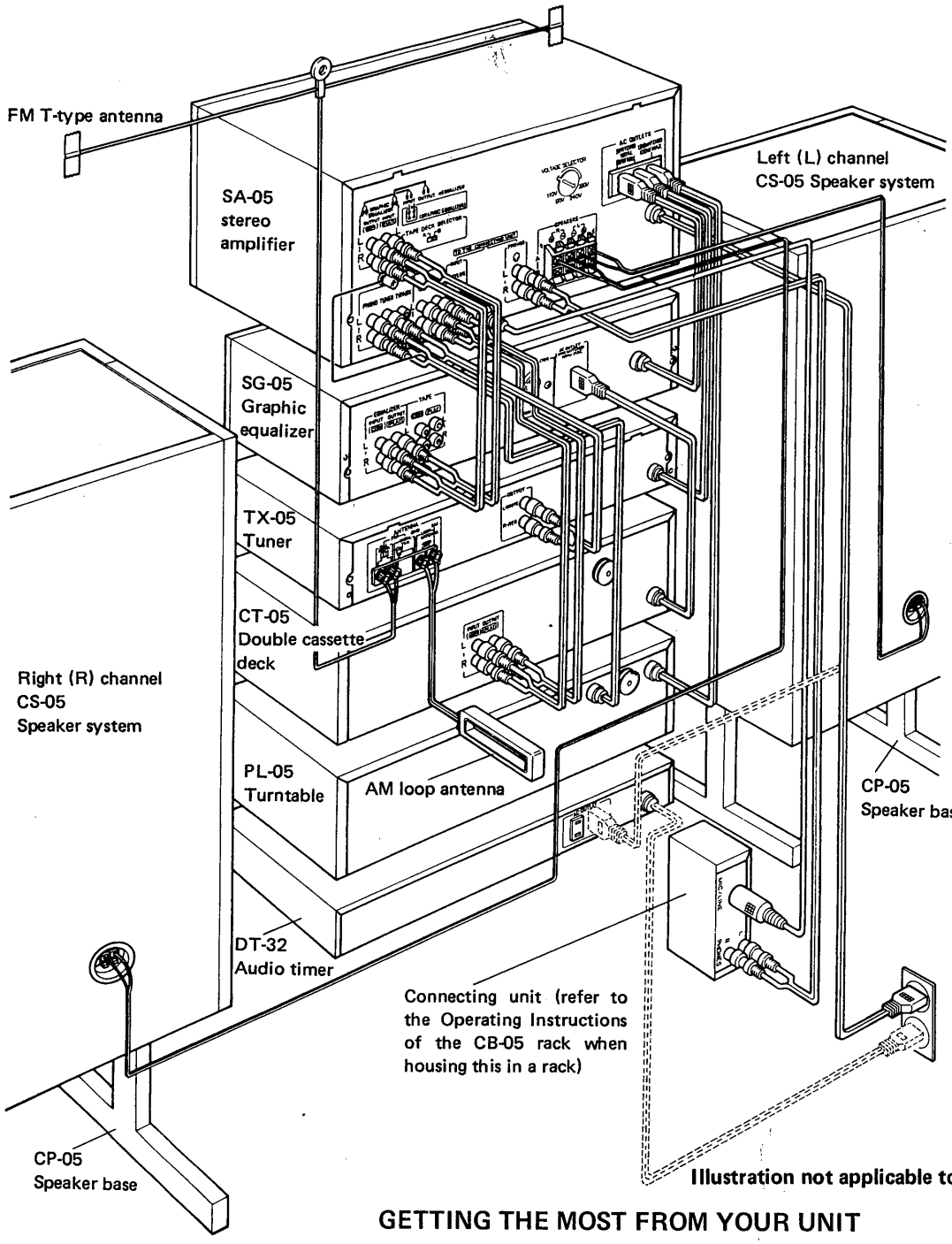


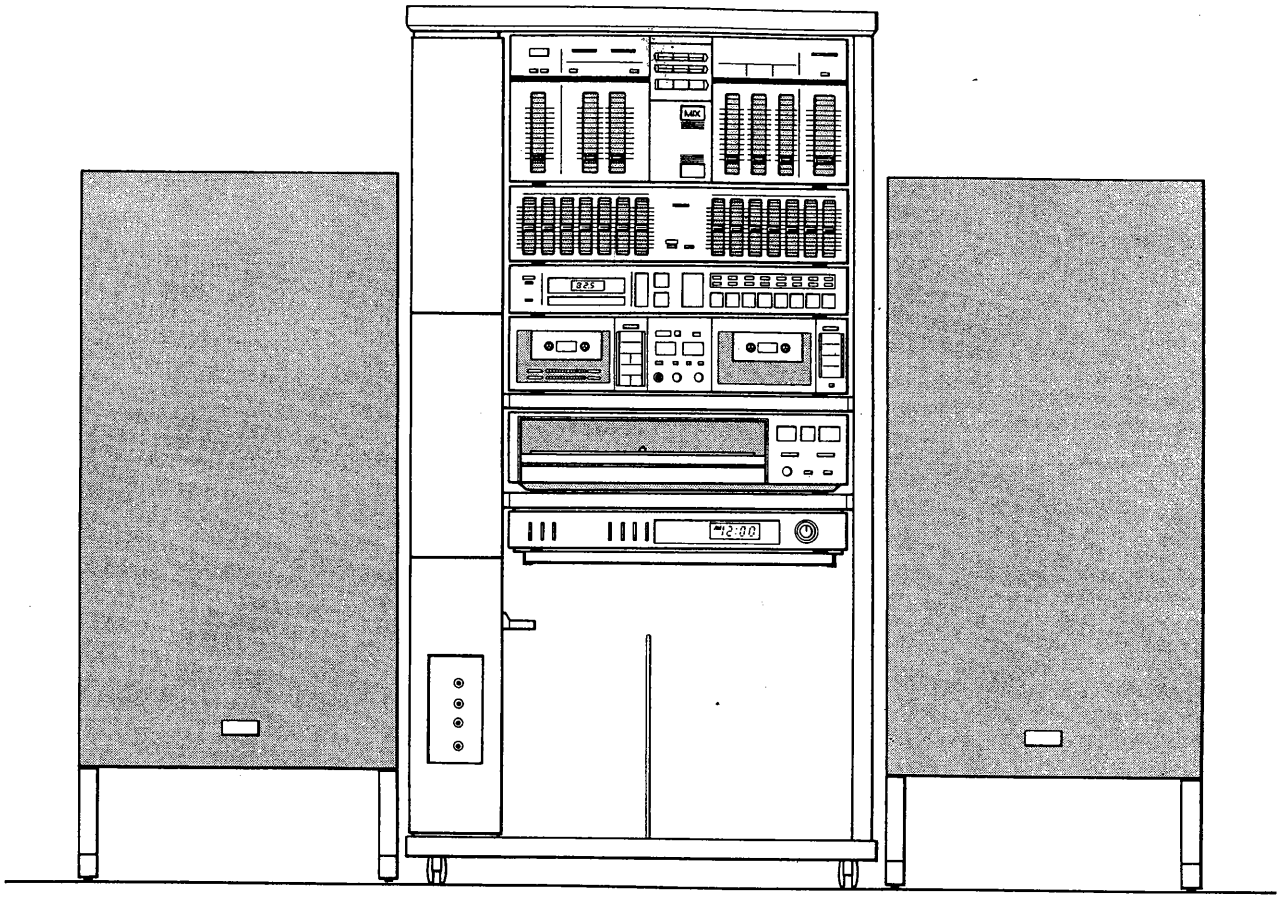
Illustration not applicable to U.K. model.

GETTING THE MOST FROM YOUR UNIT

When sound is produced using a microphone or musical instruments, the speakers may be damaged by excessive howl when the microphone(s) is used or by excessively high input signals, depending on the speaker systems which have been combined in your system.
Make sure that speaker systems with a maximum rated power of 100 watts or more are used in your system.

SA-05 AND FULLY ASSEMBLED SYSTEM

The figure below shows the SG-05 graphic equalizer, the TX-05 FM/AM digital synthesized tuner, the CT-05 double cassette deck, the PL-05 turntable, the DT-32 audio timer, the CS-05 speaker system and the CP-05 speaker bases combined with the CB-05 audio rack.



SA-05 FUNCTIONS

1. Mixing Function

Five different signals – external input (3 types), tape and source (PHONO, TUNER, TV/AUX) can be mixed.

See pages 14 to 19.

2. Echo Function

An echo effect can be added to the microphone signals, tape, source (PHONO, TUNER, TV/AUX) and LINE signals.

See pages 13 and 14.

3. Sound Control Function

In combination with the optional SG-05 graphic equalizer, a graphic equalization effect can be applied to the microphone signals, tape, source (PHONO, TUNER, TV/AUX) and LINE signals.

See pages 16 and 17.

4. Mixing + Echo + Graphic Equalization

The mixing function, echo function and sound control function can be combined in any way desired.

5. Sound on Sound Function

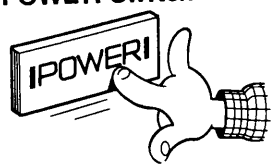
Multiple recording can be done on your own using the optional double cassette deck.

See page 21.

FRONT PANEL FACILITIES

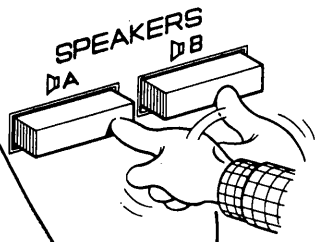
NORMAL MODE FUNCTIONS AND OPERATIONS

POWER Switch



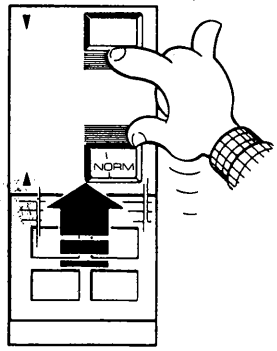
When pressed in, the power to the unit is switched on. Release the switch to switch off the power.

SPEAKERS Switches



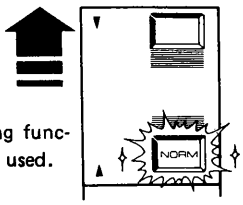
Push the switch corresponding to the speaker system being used.

Mode selector door

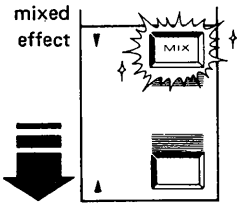


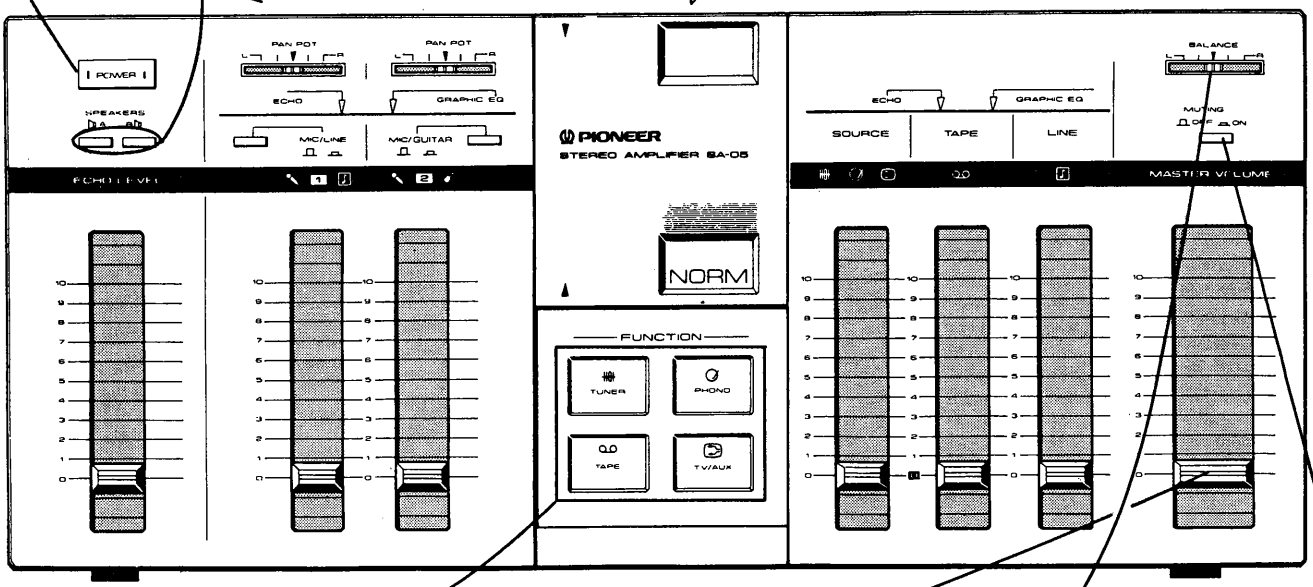
When the unit is shipped from the manufacturing plant, the door is in the down position. By sliding the door up and down, it is possible to select the amplifier's operating mode.

Normal mode :
When the mixing function is not being used.



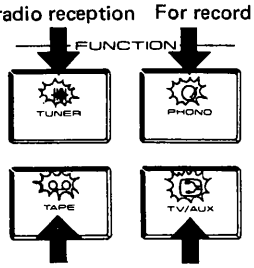
Mixing mode :
Sound can be mixed and the echo effect added.





FUNCTION Switches

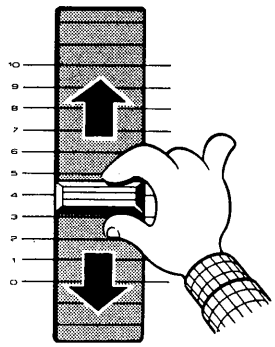
For radio reception / For record play



For listening to tapes

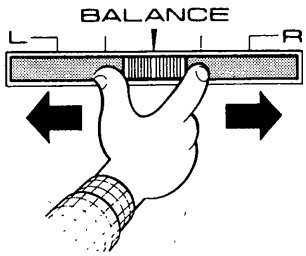
For using a component connected to the TV/AUX terminals

MASTER VOLUME control



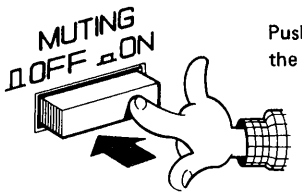
This adjusts the overall volume. The volume increases as the knob is slid from the "0" to "10" position.

BALANCE knob



This adjusts the balance between the left and right channel volume.

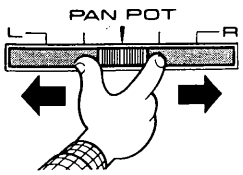
MUTING switch



Push this switch to mute the volume by 20dB.

MIXING MODE FUNCTIONS AND OPERATIONS

PANPOT* controls



These controls can move the sound localization of the [1] and [2] input sources. When moved toward "L," the source is heard through the left speaker; when moved toward "R," it is heard through the right speaker.

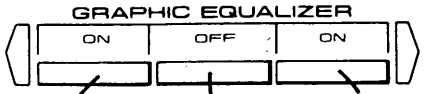
MIC/LINE, MIC/GUITAR selectors

These selectors are set in line with the components which are connected to the connecting unit's MIC/LINE [1] and MIC/GUITAR [2] terminals.

	MIC/LINE [1]	MIC/GUITAR [2]
	When a microphone is connected.	When a microphone is connected.
	When an electronic musical instrument is connected.	When an electric guitar is connected directly.

GRAPHIC EQUALIZER switches (see page 16.)

These are used when the graphic equalizer is connected.



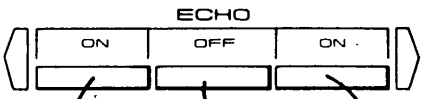
For adding the equalization effect to input sources [1] and [2]

For doing without the equalization effect

For adding the equalization effect to input sources TAPE, LINE and SOURCE

ECHO switches (see page 13.)

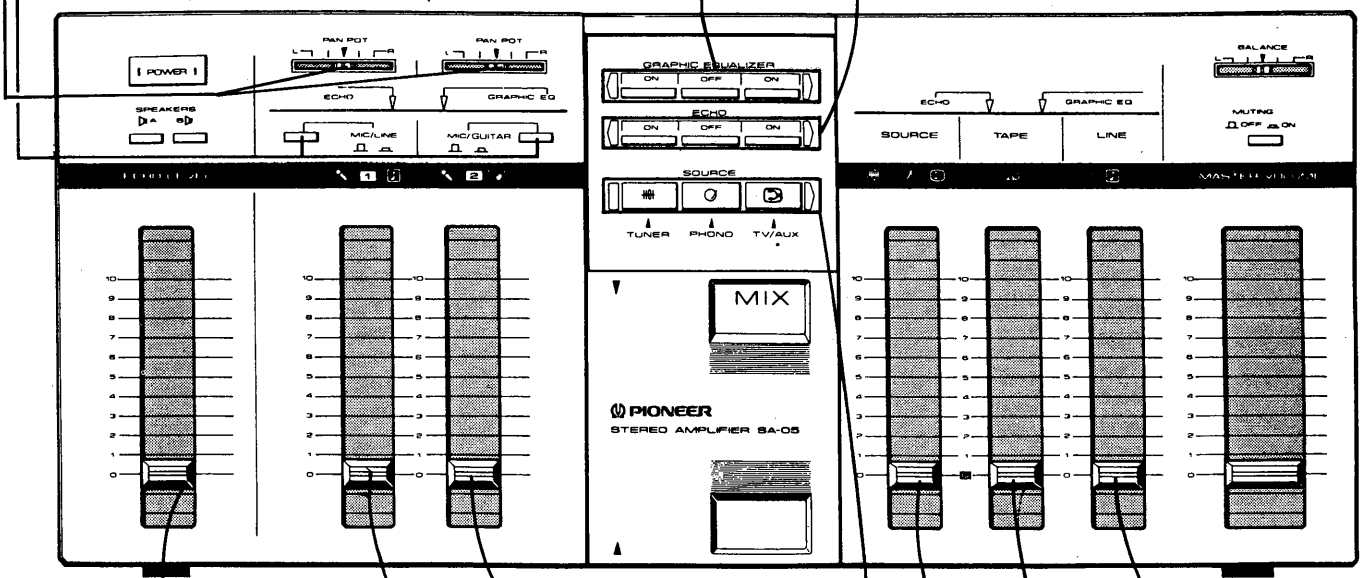
These are used to add an echo effect.



For adding an echo effect to input sources [1] and [2]

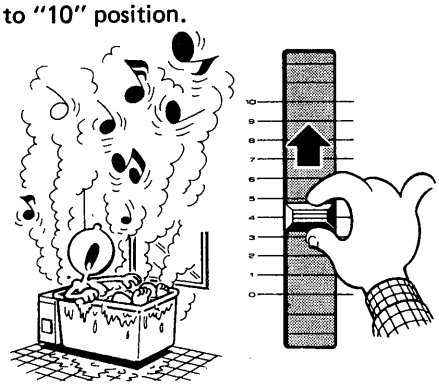
For doing without the echo effect

For adding an echo effect to input sources TAPE, LINE and SOURCE



ECHO LEVEL control

The echo components increase as this control is slid from the "0" to "10" position.



This adjusts the volume of the component connected to the connecting unit's MIC/GUITAR [2] terminal.

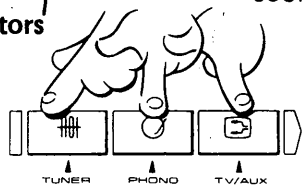
This adjusts the volume of the component connected to the connecting unit's MIC/LINE [1] terminal.

This adjusts the volume of the component connected to the connecting unit's LINE terminal.

This adjusts the tape volume.

This adjusts the volume of the component selected by the SOURCE selector.

SOURCE selectors



For radio reception

For record play

For using a component connected to the TV/AUX terminals

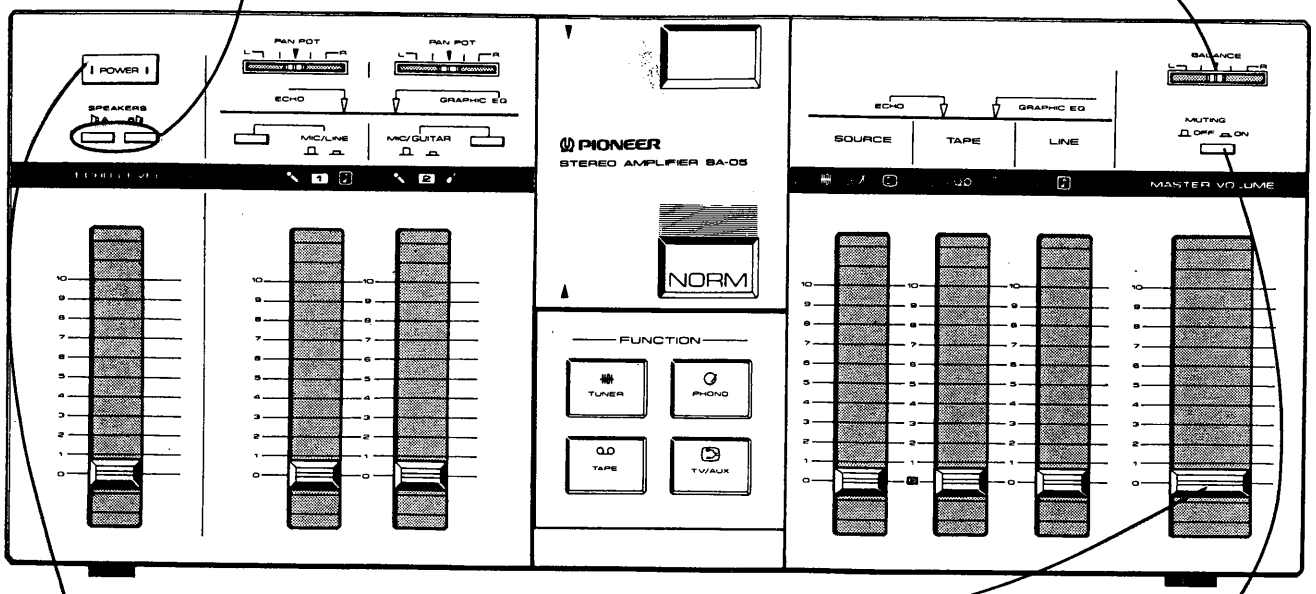
PANPOT is short for panoramic potentiometer; it works by varying the proportion of the input signals which are distributed to the left and right output terminals.

BASIC OPERATIONS (NORMAL MODE)

BEFORE PRESSING THE POWER SWITCH:

1. Press the switch corresponding to the speaker system through which the sound will be delivered.

2. Set this to the center position.

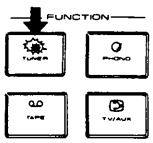


5. Press the POWER switch last of all.

4. Set this control to "0".

3. Set this switch to its OFF ("OUT") position.

RADIO RECEPTION

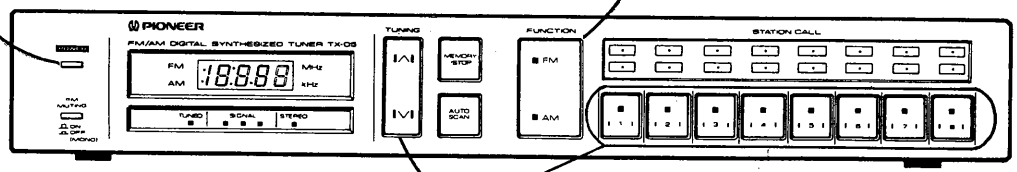


1. Press the POWER switch.

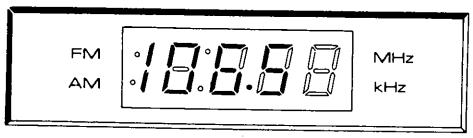
(When the tuner's power cord is connected to the SWITCHED AC OUTLET on the amplifier's rear panel, the tuner's power ON/OFF operations are coupled with the same operations of the amplifier's POWER switch.)

2. Select the broadcast band.

Pioneer's TX-05 tuner

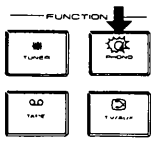


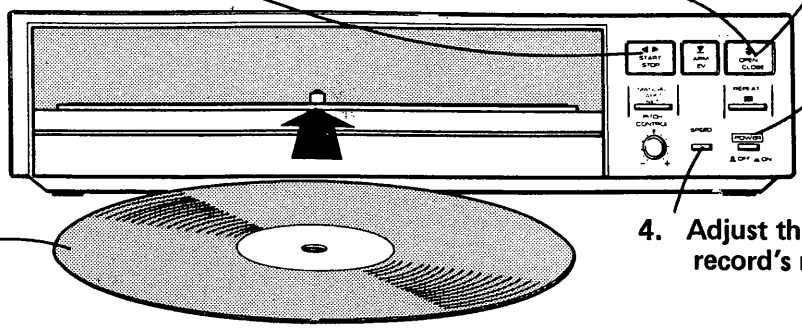
3. Tune in the station using the tuning switches or the STATION CALL switches.



For further details, refer to the Operating Instructions of the tuner you are using.

RECORD PLAY



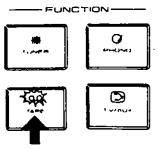


6. Press the START/STOP switch.
5. Press the OPEN/CLOSE switch.
2. Press the OPEN/CLOSE switch.
1. Press the POWER switch.
3. Place the record on the platter.
4. Adjust the speed to the record's rating.

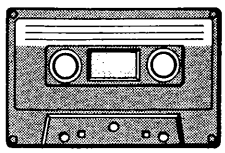
Pioneer's PL-05 turntable

For further details, refer to the Operating Instructions of the turntable you are using.

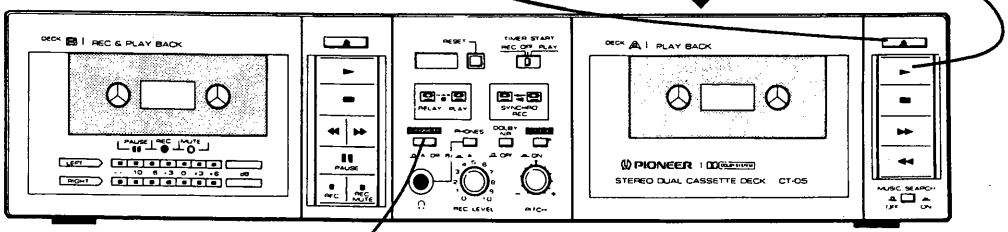
TAPE PLAYBACK



2. Press the EJECT switch and load the cassette tape.



3. Press the PLAY switch.

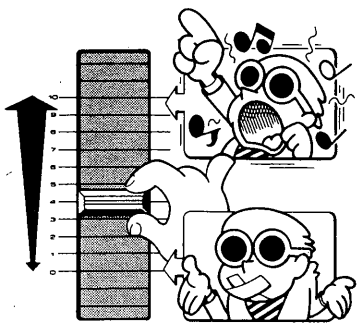


Pioneer's CT-05 cassette deck

1. Press the POWER switch.

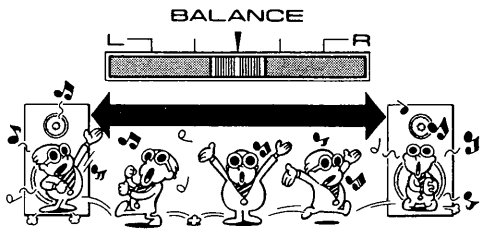
For further details, refer to the Operating Instructions of the deck you are using.

Increase the volume with the MASTER VOLUME control.



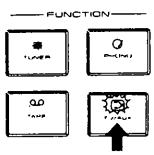
Once the controls of the various components have been set to their relative positions, slide the MASTER VOLUME control upward from the "0" position and adjust the volume.

Adjust the balance with the BALANCE control.



Adjust this control in line with the acoustics of your listening room and installation locations of the speaker systems when the sound appears to be louder at the left or right.

USING THE TV/AUX SWITCH

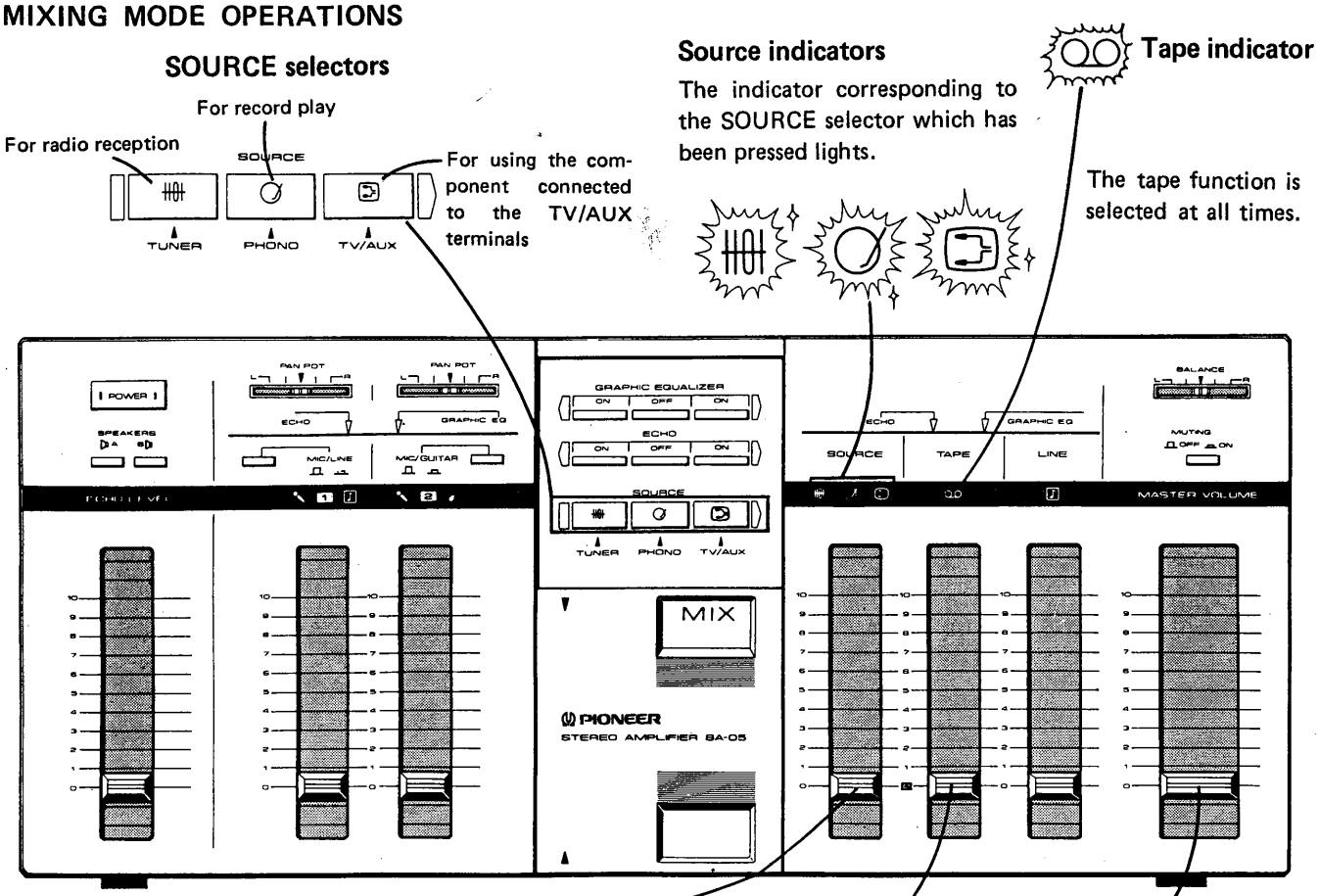


This switch is used to operate the stereo component which is connected to the rear panel TV/AUX terminals. Press the switch and operate the component.

NOTE:
For details, refer to the Operating Instructions of the stereo component concerned.

APPLICATIONS(MIX MODE)

MIXING MODE OPERATIONS



SOURCE fader control
This is used to adjust the volume of the source selected by the SOURCE selector.

TAPE fader control
This is used to adjust the tape volume.

MASTER VOLUME
This is used to adjust the overall volume.

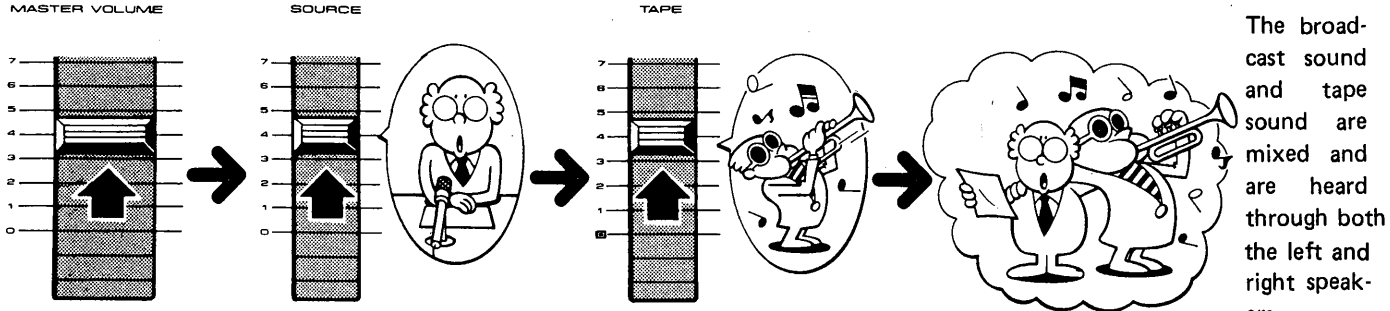
CHECKING OUT THE MIXING FUNCTION

Set up the tuner for reception and set the tape deck up for playback at the same time. Press the TUNER source selector.

1. Set the MASTER VOLUME control to 3 ~ 4.

2. Slide the SOURCE fader control up.

3. Slide the TAPE fader control up.



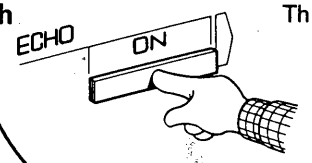
The broadcast can now be heard.

The tape can now be heard.

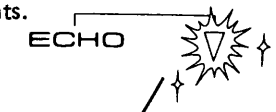
The broadcast sound and tape sound are mixed and are heard through both the left and right speakers.

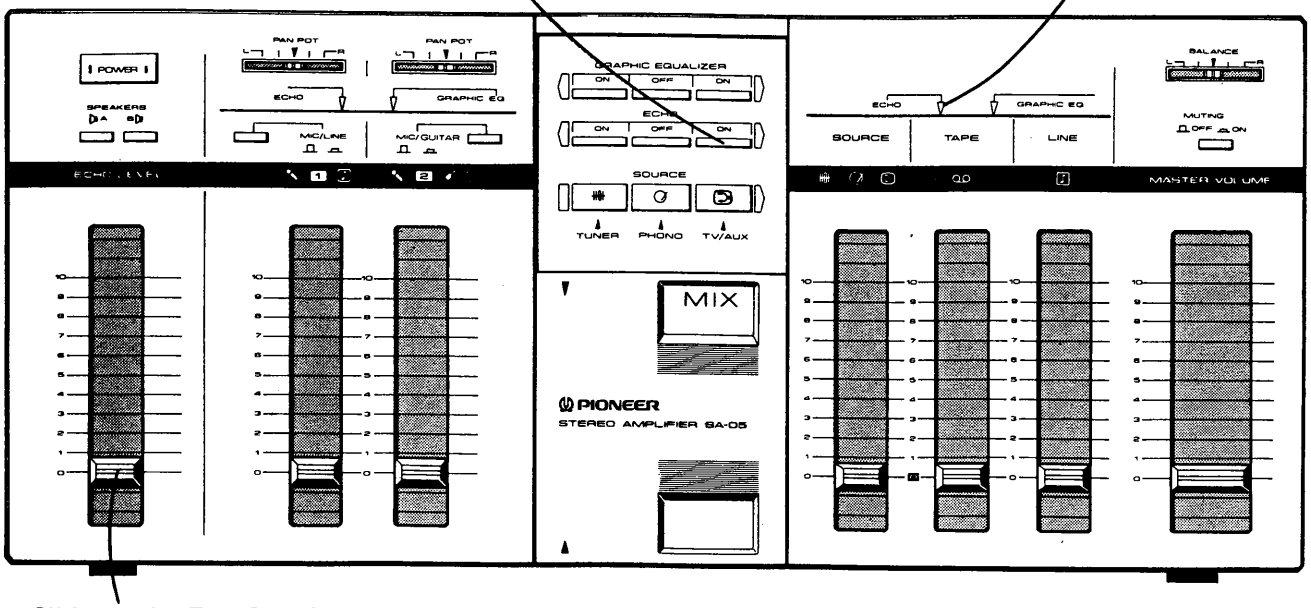
ADDING AN ECHO FOR A CONCERT HALL EFFECT

1. **Press the ECHO switch to its ON position.**



This indicator lights.





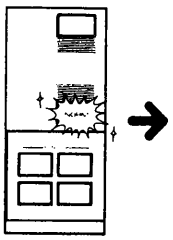
2. **Slide up the ECHO LEVEL control slowly.**

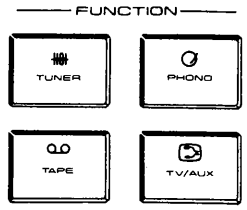
The echo components increase when the control is slid from the "0" to "10" position.

The echo effect is cut off when the mode selector door is returned to NORM.

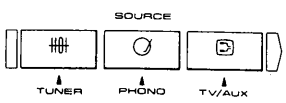
RECORDING

NORM mode



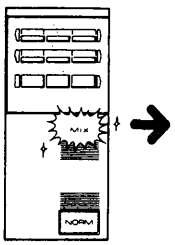


Select the recording source.



Play the program source. → **Set the tape deck to the recording mode.**

MIX mode



Cautions when recording in the MIX mode

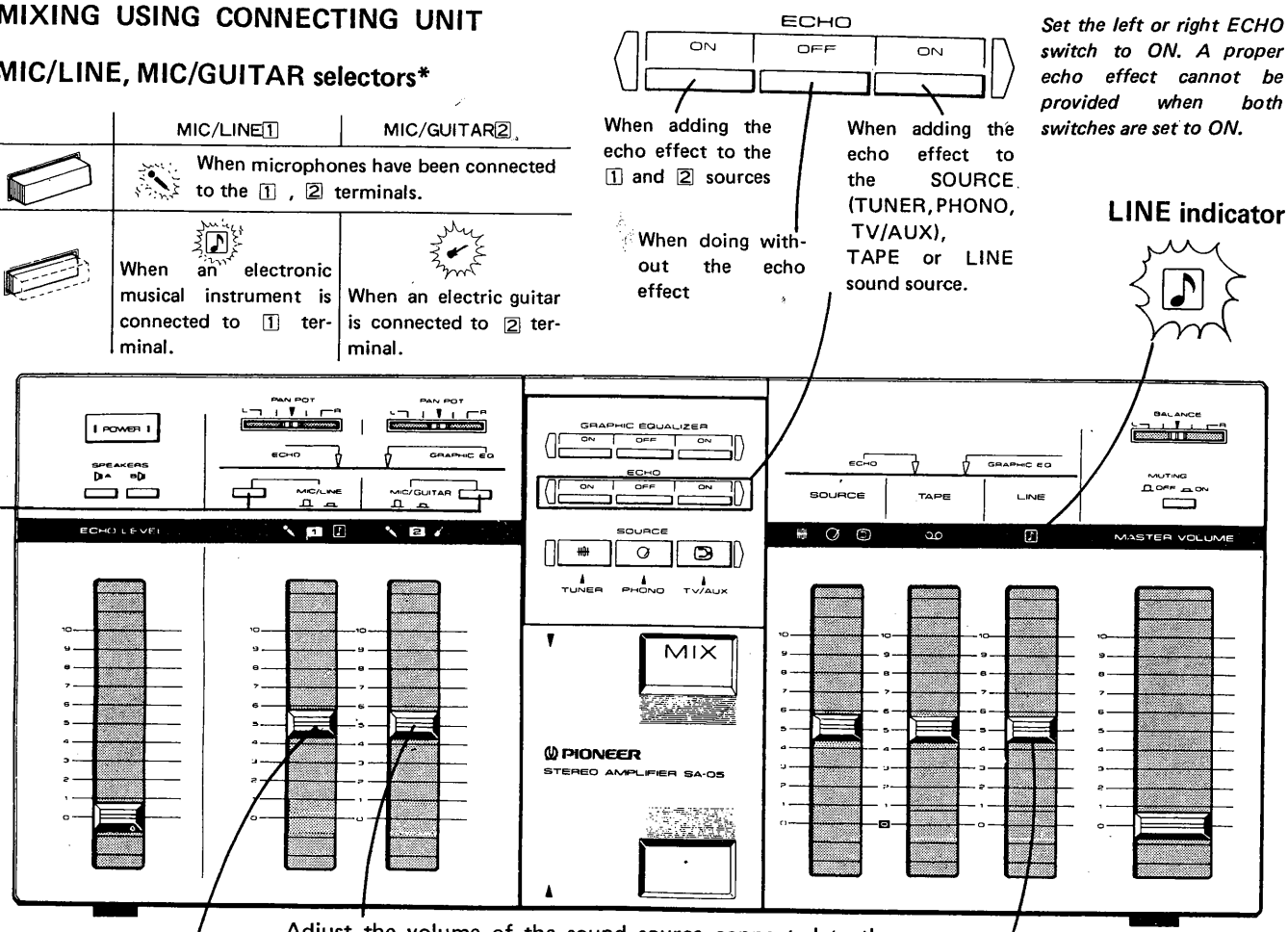
- Do not move the SOURCE fader control once the recording mode has already been established. This will cause the recording level to fluctuate and the sound will not be recorded properly.
- When recording sound with any tape deck other than the CT-05 double cassette deck, set the TAPE fader control to the " ◘ " position. If this control is above the " ◘ " position, the sound cannot be recorded.
- When recording sound with any tape deck other than the double cassette deck (Pioneer's CT-05), set the tape deck selector on the amplifier's rear panel to "A."

SOUND MIXING OPERATIONS

MIXING USING CONNECTING UNIT

MIC/LINE, MIC/GUITAR selectors*

	MIC/LINE 1	MIC/GUITAR 2
	When microphones have been connected to the 1 , 2 terminals.	
	When an electronic musical instrument is connected to 1 terminal.	When an electric guitar is connected to 2 terminal.



Set the left or right ECHO switch to ON. A proper echo effect cannot be provided when both switches are set to ON.

Adjust the volume of the sound source connected to the MIC/GUITAR 2 terminal.

Adjust the volume of the sound source connected to the MIC/LINE 1 terminal.

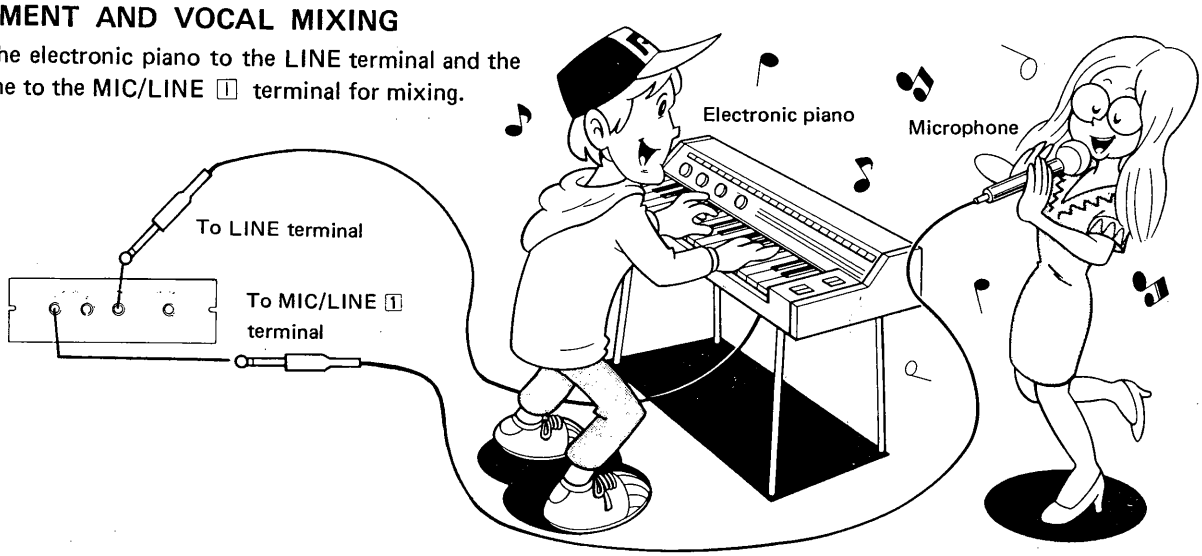
"5" is the standard setting for the fader controls which are used to mix the 1 , 2 , SOURCE, TAPE and LINE sound.

Adjust the volume of the sound source connected to the LINE terminal.

**Always set the fader controls to "0" before setting the selector to the MIC position. The speakers may be damaged if the setting is performed with the fader control at a higher position.*

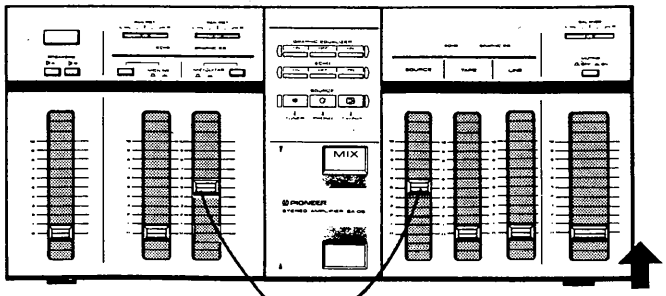
INSTRUMENT AND VOCAL MIXING

Connect the electronic piano to the LINE terminal and the microphone to the MIC/LINE 1 terminal for mixing.



INSTRUMENT PLAY ALONG WITH TAPE OR RECORD

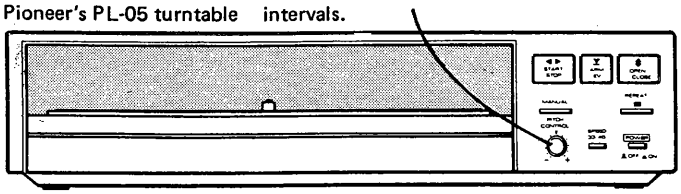
Play the guitar along with the record.

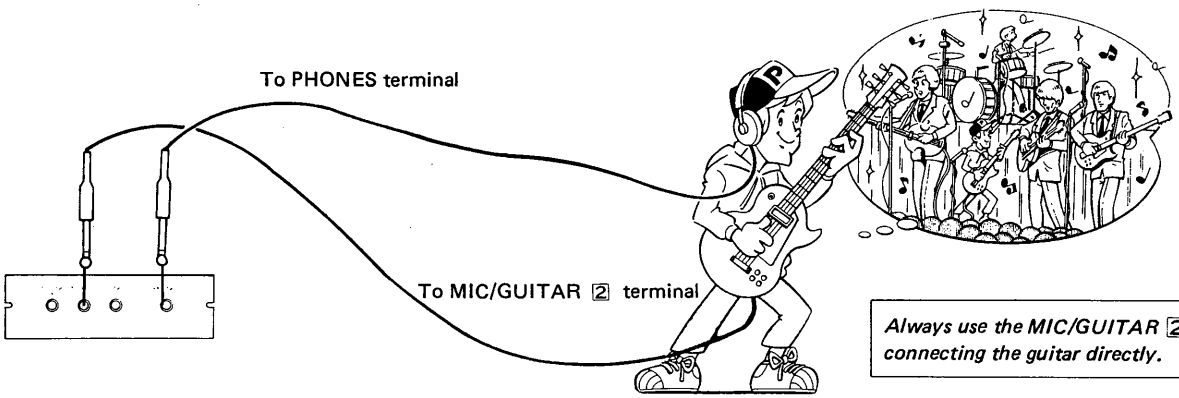


"5" is the standard setting for the SOURCE and [2] faders.

PITCH control
This can be used to vary the record's rated speed across a +6% to −6% range, and it comes in handy when aligning the musical intervals.

Pioneer's PL-05 turntable

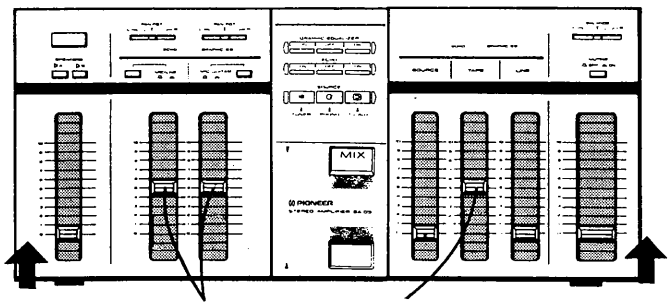




Always use the MIC/GUITAR [2] terminal when connecting the guitar directly.

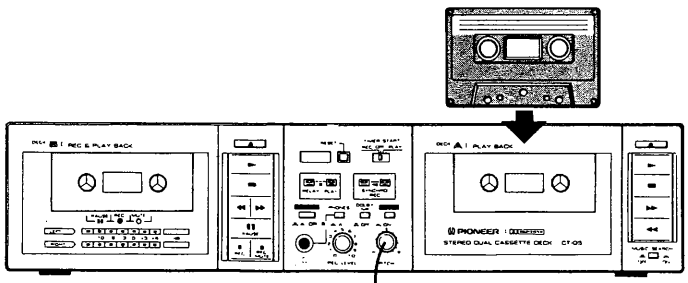
SINGING ALONG WITH PRE-RECORDED TAPE

Singing a duet with a pre-recorded tape

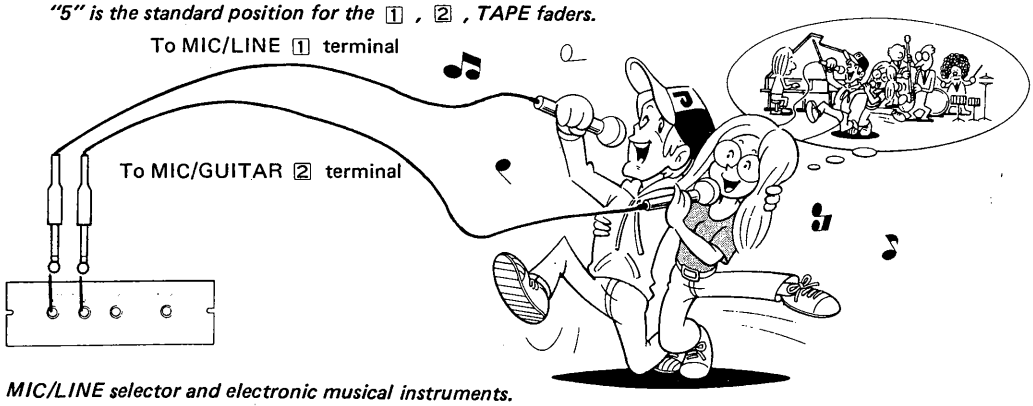


"5" is the standard position for the [1] , [2] , TAPE faders.

Pre-recorded tape



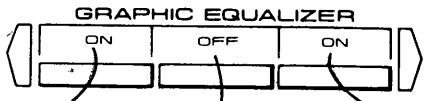
PITCH control
This can be used to vary the tape's rated speed across a +6% to −6% range, and it comes in handy when aligning the musical intervals.



MIC/LINE selector and electronic musical instruments.
The output of the electronic musical instrument can be connected directly to the MIC/LINE [1] terminal in which case its volume control should be turned down as far as possible.

USING THE GRAPHIC EQUALIZER FUNCTIONS

USING THE GRAPHIC EQUALIZER



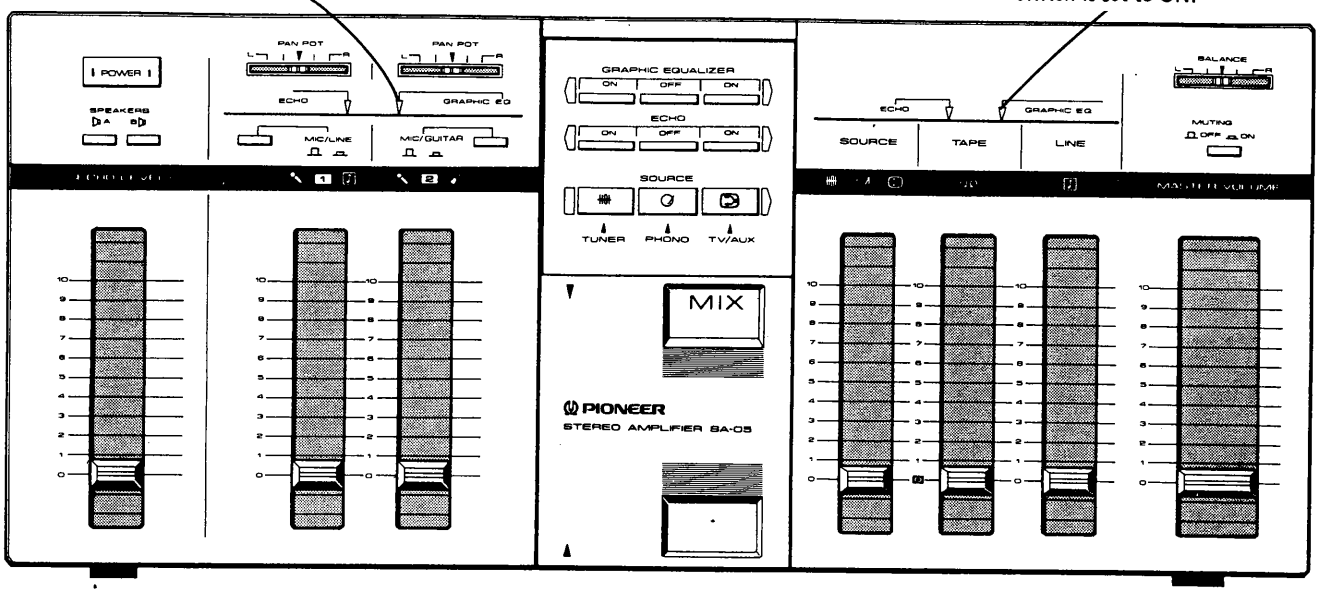
Push to add the graphic equalization effect to the [1] and [2] input sources.

Push to do without the graphic equalization effect.

Push to add the graphic equalization effect to the SOURCE (PHONO, TUNER, TV/AUX), TAPE and LINE input source.

This lights when the left-hand switch is set to ON.

This lights when the right-hand switch is set to ON.

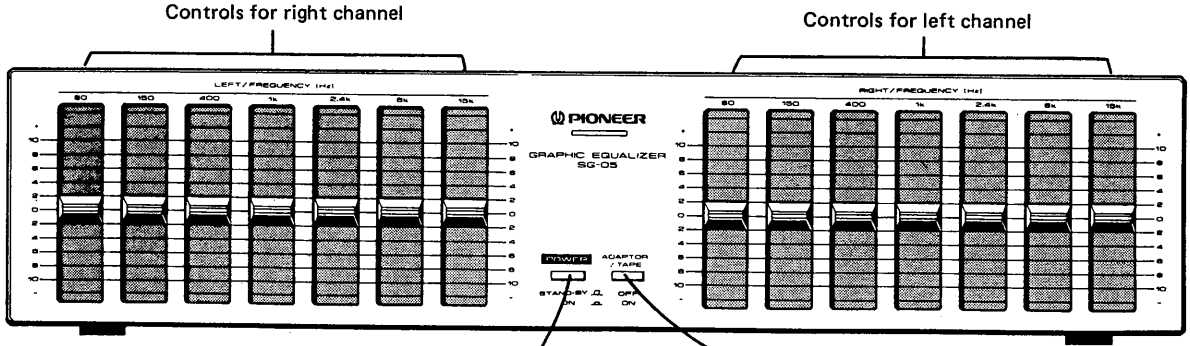


SG-05 Graphic Equalizer

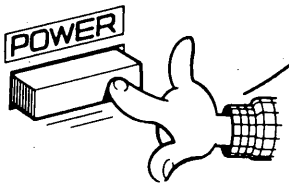
The graphic equalizer can also be used when the SOURCE equalizer switch is set to ON and the mode selector door is at NORM.

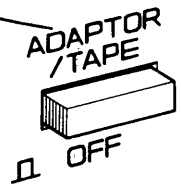
Controls for right channel

Controls for left channel



Push the POWER switch





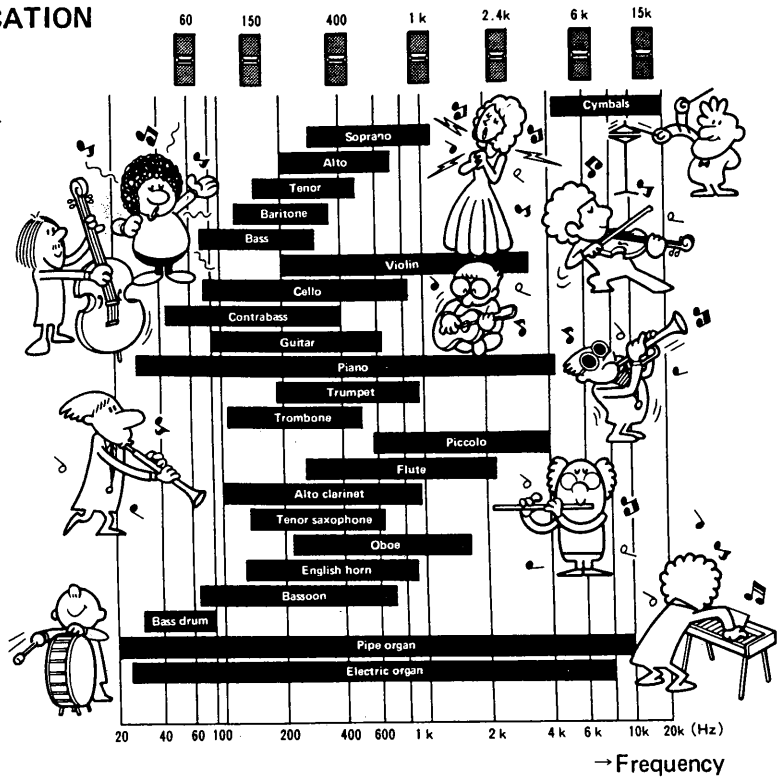
Set this switch to the released (OFF) position.

When using the graphic equalizer, read through the Operating Instructions that come with the graphic equalizer (SG-05).

TYPICAL GRAPHIC EQUALIZER APPLICATION

Creating your own original sound

Both instruments and voices have their own frequency bands, as shown in the figure.
By sliding the graphic equalizer's controls up and down, the volume of the desired instrument can be increased or reduced.
For instance, if the 60Hz control is slid upward, the bass drum takes on a more dynamic sound while sliding the 1kHz control upward positions the person(s) singing in front. Sliding the 6kHz control upward makes the cymbal and "high hat" sound even clearer.
In addition, instruments and voices contain a great many harmonic components besides the fundamental frequency band and so you can easily have a lot of fun creating your own sound by manipulating the seven controls.



OPERATION DURING MIXING

Changing the tonal colors of instruments

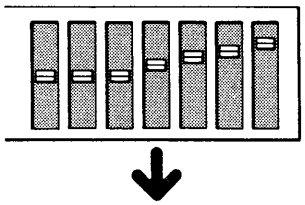
For a guitar being played, for instance, slide up the bass and treble controls to have fun listening to a boosted bass and a boosted treble.

Preventing microphone howl

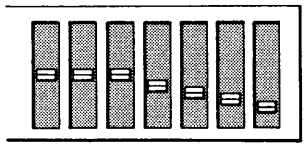
Howl, which is heard when a micorphone is used, can be prevented by sliding down the control in the band which produces the howl.

Improving S/N ratio during tape recording/playback

Tape hiss, that irritating noise heard with tape recording, can be improved by sliding down slightly the graphic equalizer's high-range controls.

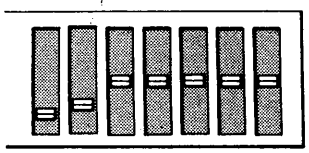


(Positions during playback)



(Positions during recording)

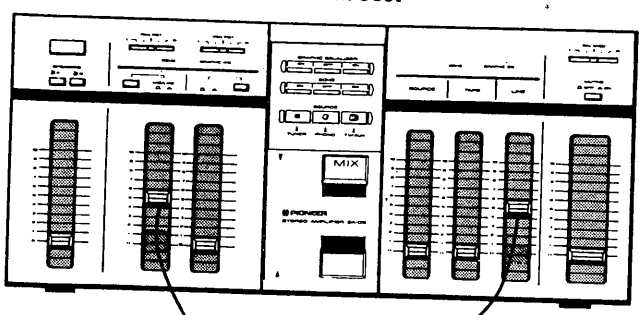
Wind noise picked up by the microphone while recording outdoors is also improved by sliding down the low-range controls slightly.



RECORDING MIXED SOUND

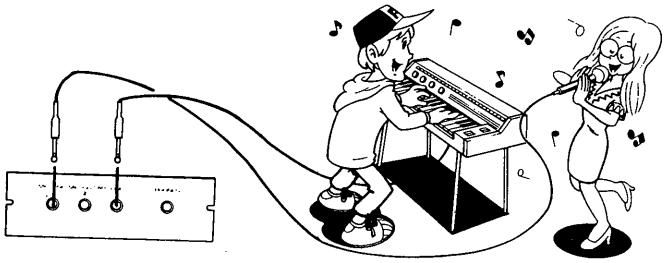
RECORDING MIXED INSTRUMENT AND VOCAL SOUND

Connect the electronic piano to the LINE terminal and the microphone to the MIC/LINE [1] terminal and mix the sound of these two sources.

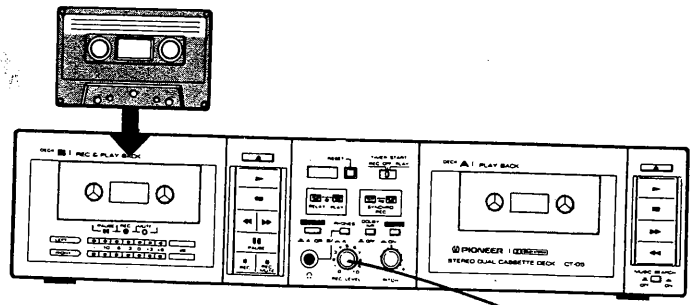


2. Adjust the mixing balance.

"5" is the standard setting for the [1] and LINE faders.



1. Load the tape into the deck.



3. Set the recording level.

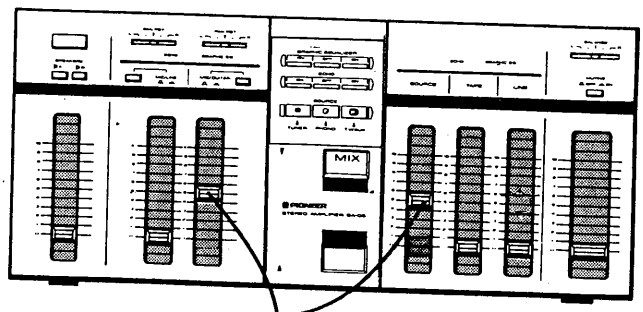
"6" is the standard setting for the REC LEVEL control.

4. Start recording the mixed sound.

NOTES :
- *Do not move any controls except the MASTER VOLUME control after the recording level has been adjusted.*
- *Refer to the Operating Instructions of the tape deck for further details on its operation.*

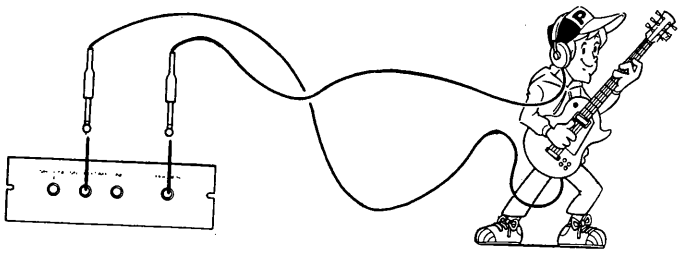
RECORDING MIXED DISC AND VOCAL (OR INSTRUMENT) SOUND

Connect the electric guitar to the MIC/GUITAR [2] terminal and mix the sounds of the electric guitar and record.



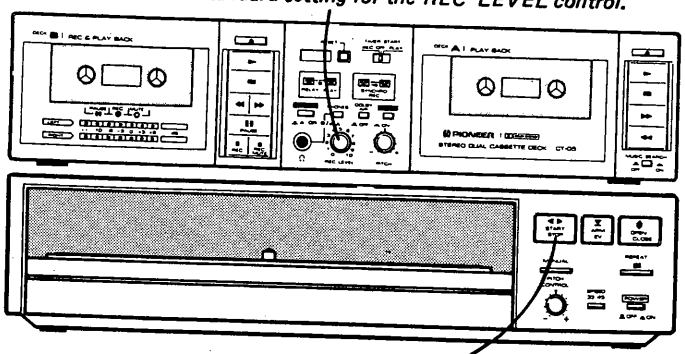
2. Adjust the mixing balance.

"5" is the standard setting for the [2] and SOURCE faders.



3. Load the tape and adjust the recording level.

"6" is the standard setting for the REC LEVEL control.



1. Play the record.

4. Start recording the mixed sound.

NOTES :
- *Do not move any controls except the MASTER VOLUME control after the recording level has been adjusted.*
- *Refer to the Operating Instructions of the tape deck for further details on its operation.*

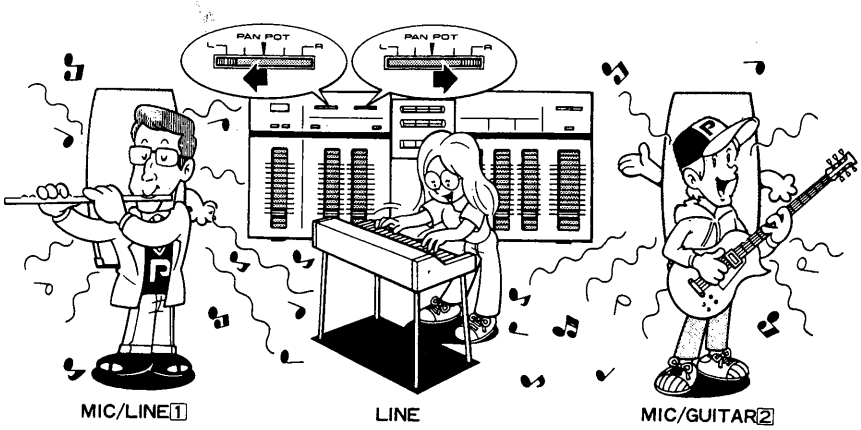
USING THE PANPOT CONTROLS

The MIC/LINE [1] and MIC/GUITAR [2] input sources are provided with PANPOT controls for freely varying the proportion of the left and right channel sound which is output to the recording terminals and speaker terminals.

The PANPOT controls can position important sounds in stereo exactly as required.

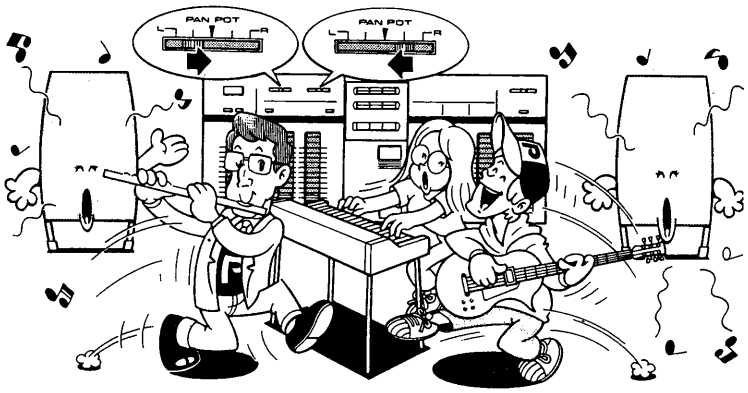
When PANPOT [1] is set to L and PANPOT [2] to R

In this example, the microphone is connected to the MIC/LINE [1] terminal, the sound of a flute is being picked up, an electric guitar is connected to the MIC/GUITAR [2] terminal and an electronic piano is connected to the LINE terminal.



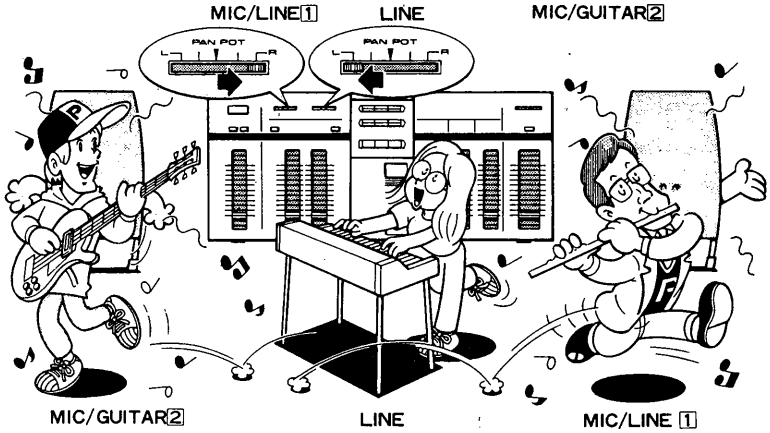
Sliding the PANPOT controls

Slide [1] a little toward the right and [2] a little toward the left. The sound of the flute and electric guitar is then brought closer to the center.

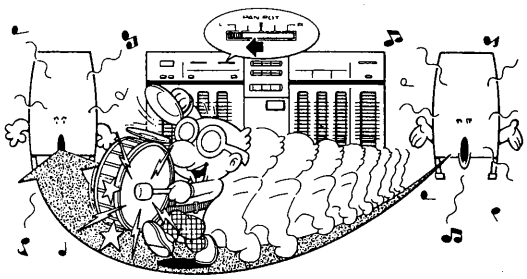


Reversing the PANPOT control position

If PANPOT [1] is set to R and PANPOT [2] to L, the sound locations of the flute and electric guitar are reversed.

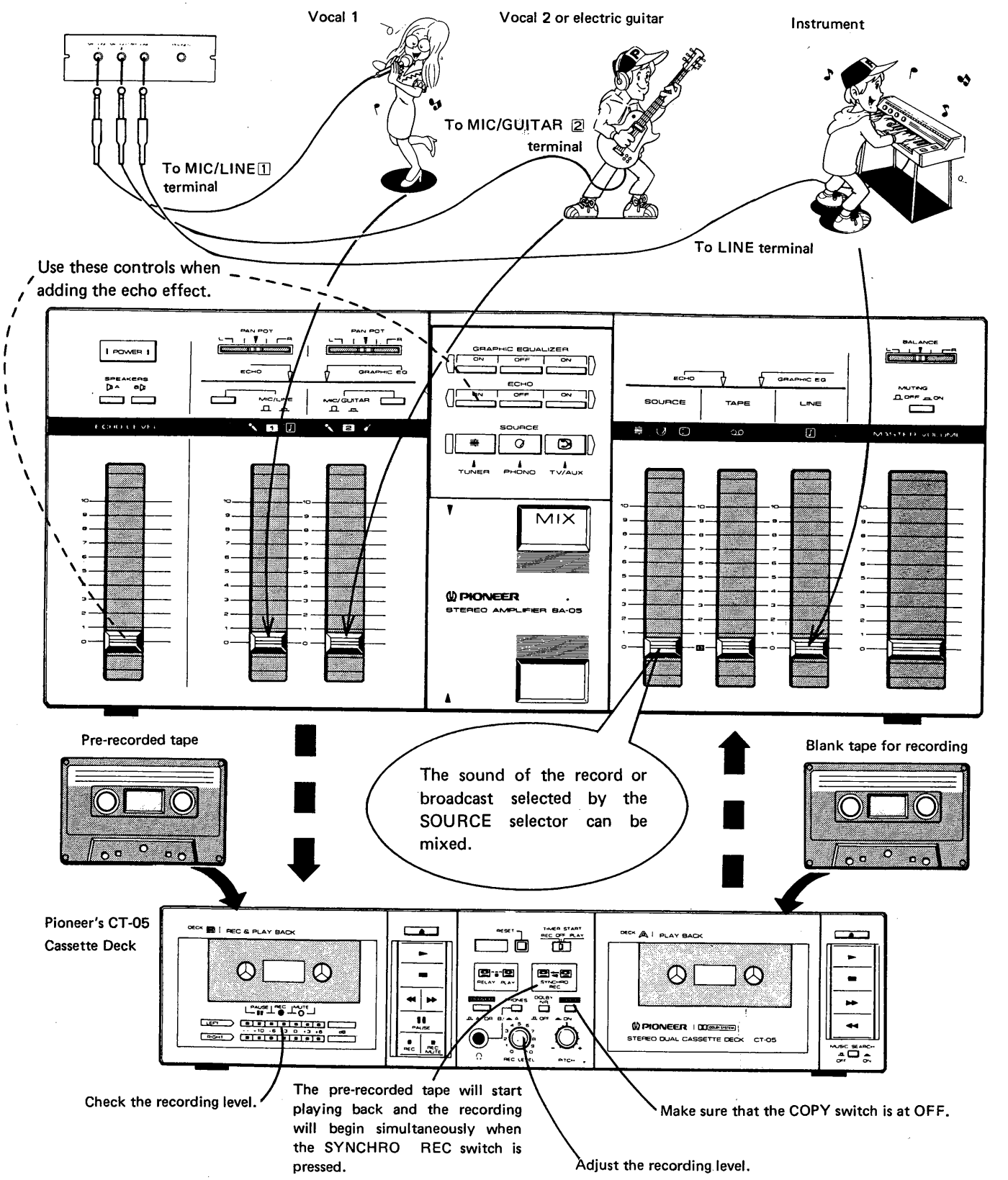


When the PANPOT control is moved from L to R, or vice versa, even with a sound recorded with one microphone, the sound location will move from left to right, or vice versa.



USING THE DUAL CASSETTE DECK FUNCTIONS

Mixed sound using the dual cassette deck

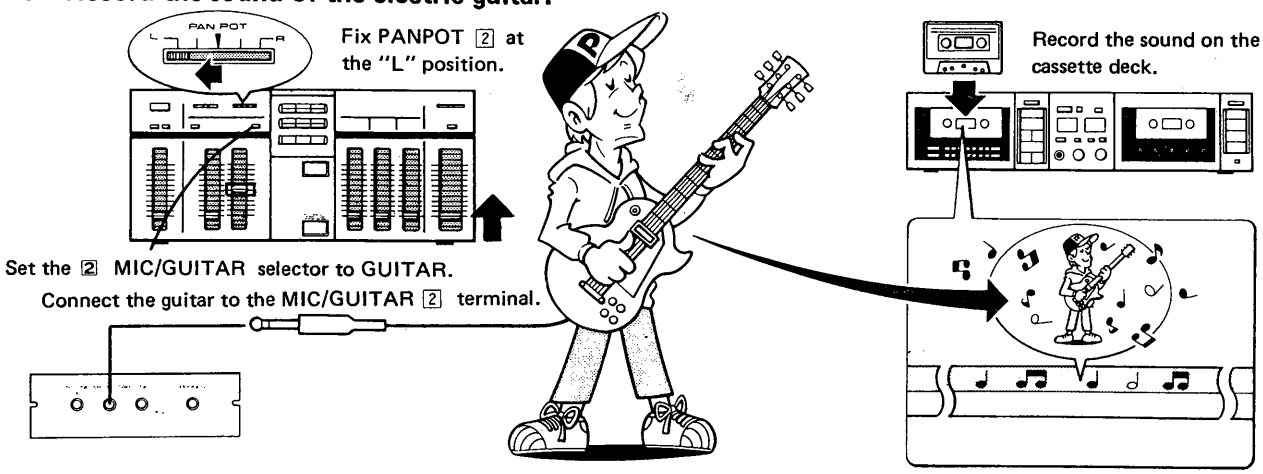

Vocal 1
Vocal 2 or electric guitar
Instrument
To MIC/LINE 1 terminal
To MIC/GUITAR 2 terminal
To LINE terminal
Use these controls when adding the echo effect.
MIX
PIONEER
STEREO AMPLIFIER SA-05
Pre-recorded tape
Blank tape for recording
The sound of the record or broadcast selected by the SOURCE selector can be mixed.
Pioneer's CT-05 Cassette Deck
PIONEER
STEREO DUAL CASSETTE DECK CT-05
Check the recording level.
The pre-recorded tape will start playing back and the recording will begin simultaneously when the SYNCHRO REC switch is pressed.
Adjust the recording level.
Make sure that the COPY switch is at OFF.

For details, refer to the Operating Instructions of the tape deck being used.

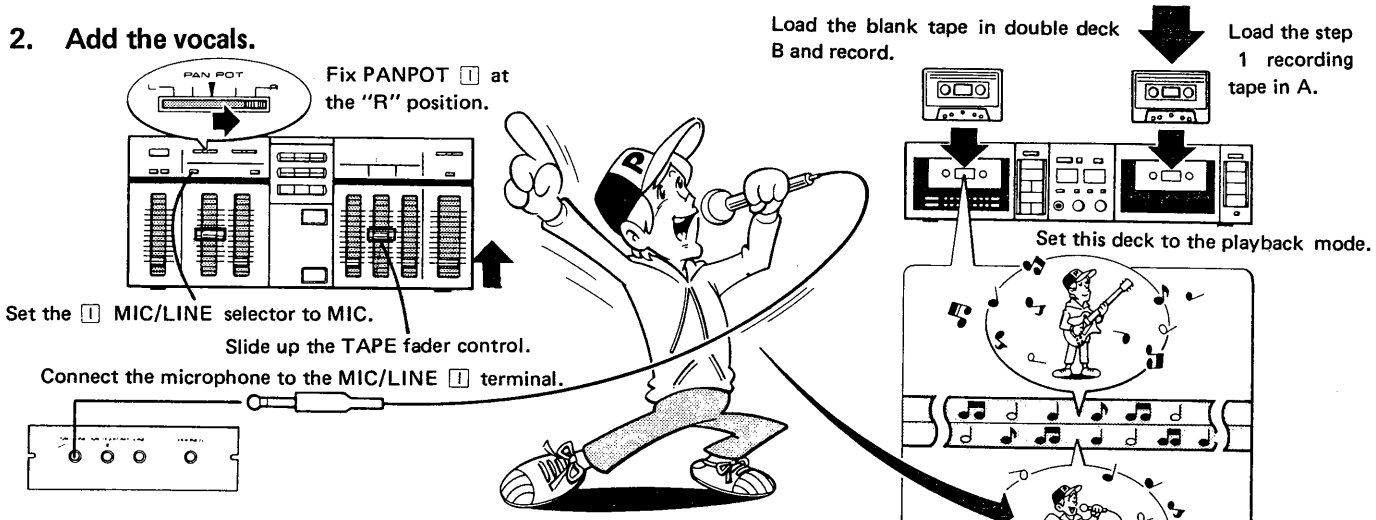
DO-IT-YOURSELF MULTIPLE RECORDINGS

Multiple recording in combination with the double cassette deck
Example: Electric guitar, electronic piano, vocal recording

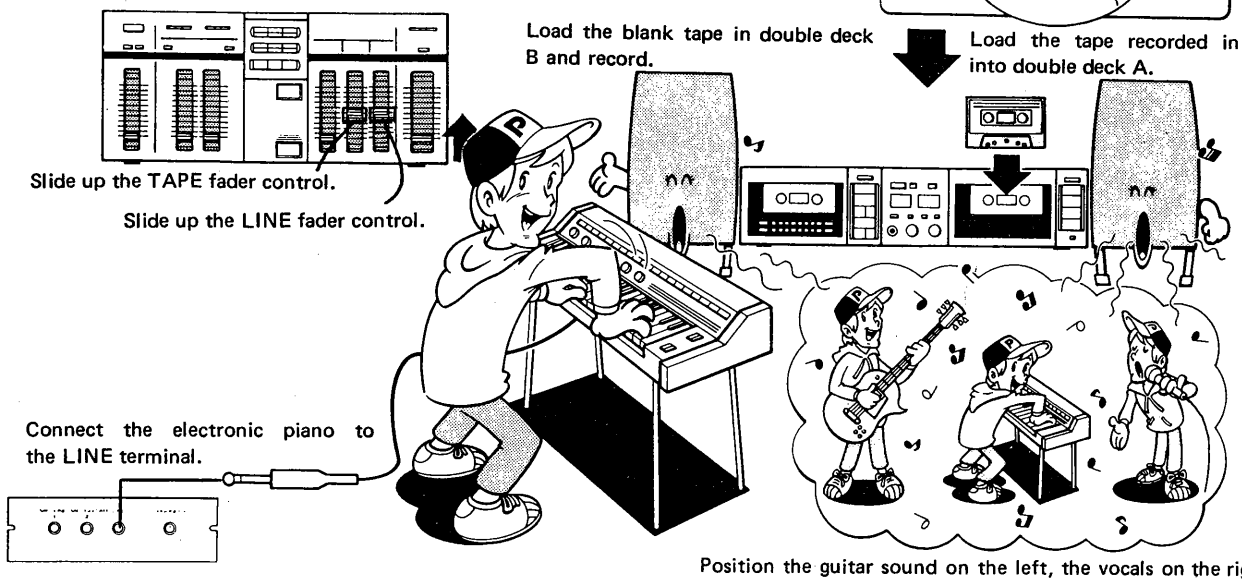
1. Record the sound of the electric guitar.


PAN POT
Fix PANPOT 2 at the "L" position.
Record the sound on the double cassette deck.
Set the 2 MIC/GUITAR selector to GUITAR.
Connect the guitar to the MIC/GUITAR 2 terminal.

2. Add the vocals.


Load the blank tape in double deck B and record.
Load the step 1 recording tape in A.
PAN POT
Fix PANPOT 1 at the "R" position.
Set this deck to the playback mode.
Set the 1 MIC/LINE selector to MIC.
Slide up the TAPE fader control.
Connect the microphone to the MIC/LINE 1 terminal.

3. Add the sound of the electronic piano.


Load the blank tape in double deck B and record.
Load the tape recorded in step 2 into double deck A.
Slide up the TAPE fader control.
Slide up the LINE fader control.
Connect the electronic piano to the LINE terminal.

Position the guitar sound on the left, the vocals on the right and the electronic piano in the center.

COMBINATION WITH AUDIO TIMER

Set up the amplifier as follows when using an audio timer to listen to broadcasts at the desired time or to play back tapes.

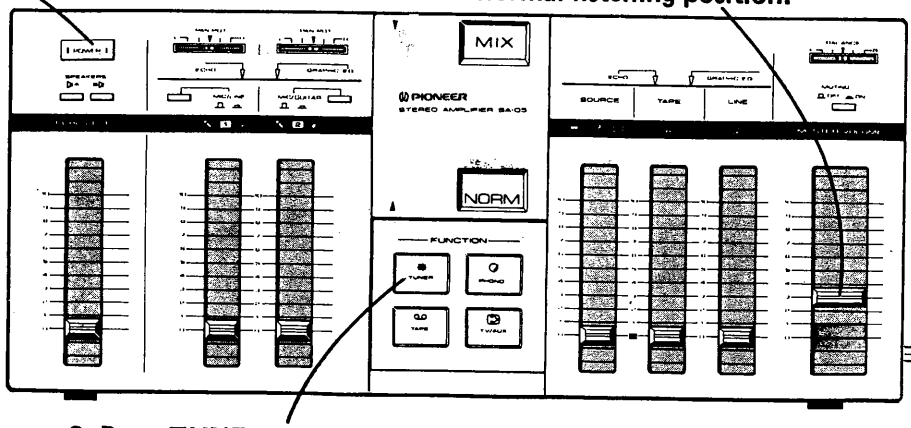
(1) WHEN LISTENING TO A BROADCAST AT A DESIRED TIME

Example of NORM mode application.

1. Set the POWER switch to ON.

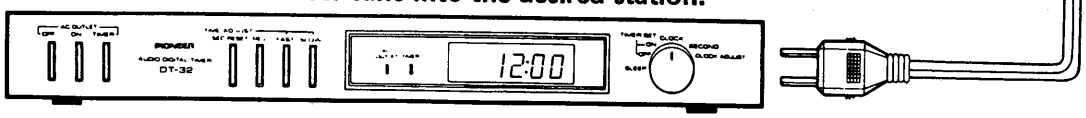
This unit's function switch is set to TUNER as soon as its power is turned on.

2. Set the MASTER VOLUME control to the normal listening position.



Press the TUNER source selector and set the SOURCE fader control to the "5" position for use in the MIX mode.

3. Press TUNER. Now tune into the desired station.



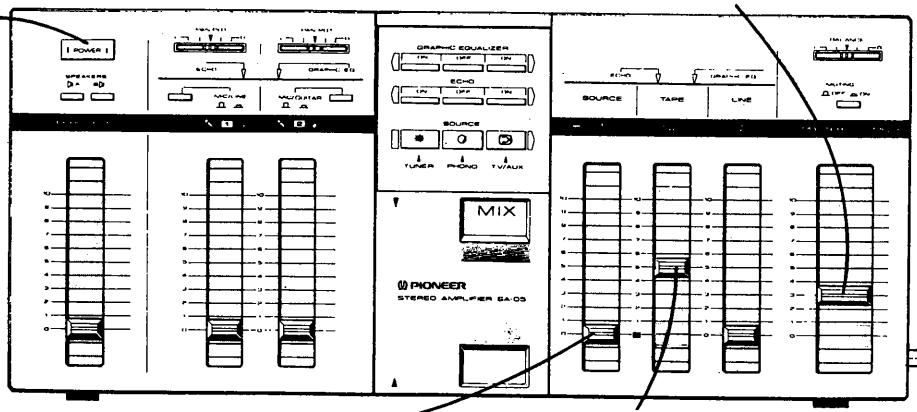
4. Connect the power cord to the timer and set the desired time.

(2) WHEN LISTENING TO A TAPE AT A DESIRED TIME

Use the MIX mode for this operation.

2. Set the MASTER VOLUME control to the normal listening position.

1. Set the POWER switch to ON.



3. Set the SOURCE fader control to "0."

4. Set the TAPE fader control to "5" and the tape deck to the TIMER-PLAY mode.

5. Connect the power cord to the timer and set

(3) WHEN RECORDING A BROADCAST AT A DESIRED TIME

Set the tape deck to the TIMER-REC mode with the other components set up as in (1). (The TAPE fader control must be set to the " ▣ " position.)

Keep the MASTER VOLUME control at the "0" position.

For details, refer to the Operating Instructions of the audio timer and tape deck being used.

TROUBLESHOOTING

If you think that something is wrong with your unit, check out the points below. In many cases, incorrect operation is often taken for trouble. Moreover, the fault may lie outside the unit. Check the other stereo components you are using and any other electrical appliances. If the trouble is not remedied even after carrying out the suggested corrective action, contact your dealer or your nearest PIONEER Service Center.

Symptom	Trouble	Remedy
No sound even when MASTER VOLUME control is slid up.	Have the speakers not been properly selected by the SPEAKERS selector switch?	Press the right switch.
	Have the speaker cords become disconnected from the terminals?	Connect the cords properly to the terminals.
	Mode selector door position? → NORM	Press the right switch.
	Wrong FUNCTION switch operated? → MIX	
	Is mixing fader at "0"?	Slide up fader.
	Wrong SOURCE selector operated?	Press right SOURCE selector.
	Has graphic equalizer's power switch been pressed?	Set to ON.
	Is graphic equalizer's TAPE/ADAPTOR switch at ON?	Release to OFF position.
	Has connecting unit been connected incorrectly?	Refer to pages 5 and 6, and connect properly.
No sound from one speaker.	Is BALANCE control at far left or right?	Set control to center position.
	Has one of speaker cords become disconnected?	Connect cord to terminal properly.
	Has one of connecting cords become disconnected?	Connect plug to terminal properly.
Low sound even when volume control is slid up.	Is MUTING switch at ON?	First set volume control to "0", set switch to OFF and then slide volume control upward.
	Wrong MIC/LINE, MIC/GUITAR selector position?	Select correct selector position.
	Is mixing fader control position too low?	Slide up fader.
Microphone volume does not increase.	Wrong fader selection?	Slide up correct fader control.
	Wrong MIC/LINE, MIC/GUITAR selector position?	Set to MIC position.
	Disconnected cord connecting amplifier with connecting unit?	Re-connect properly.
	NORM mode?	Slide down door to set to MIX mode.
No echo effect.	Correct ECHO switch selected?	Select left and right ON switches properly and press.
	Is ECHO LEVEL control at "0" position?	Slide up control.
	NORM mode?	Slide down door to set to MIX mode.

SPECIFICATIONS

Amplifier Section (NORM mode)

Continuous average power output is 70 watts per channel, min., at 8 ohms from 20 hertz to 20,000 hertz with no more than 0.05% total harmonic distortion.

Continuous Power Output at 1kHz (both channels driven)
T.H.D. 0.05%, 8 ohms, 8 ohms . . . 75 watts per channel
T.H.D. 1%, 1kHz . . . . . 80 watts per channel
Total Harmonic Distortion (20Hertz to 20,000Hertz, 8 ohms, from TV/AUX)
continuous rated power output . . . .No more than 0.05%
36 watts per channel power output . . No more than 0.04%
1 watt per channel power output . . . No more than 0.1%
Intermodulation Distortion (50Hertz:7,000Hertz = 4:1, 8 ohms, from TV/AUX)
continuous rated power output . . . No more than 0.05%
Damping Factor (20Hertz to 20,000Hertz, 8 ohms) . . 50
Input (Sensitivity/Impedance)
NORM position
PHONO . . . . . 2.5mV/47 kilohms
TUNER . . . . . 150mV/47 kilohms
TV/AUX . . . . . 150mV/47 kilohms
TAPE PLAY . . . . . 150mV/47 kilohms
MIX position
PHONO . . . . . 1.25mV/47 kilohms
TUNER . . . . . 75mV/47 kilohms
TV/AUX . . . . . 75mV/47 kilohms
TAPE PLAY . . . . . 75mV/47 kilohms/22 kilohms
MIC/LINE 1 . . . . . 0.5mV/75mV/56 kilohms
MIC/GUITAR 2 . . . . . 0.5mV/1.58mV/56 kilohms
LINE . . . . . 75mV/49 kilohms
EQUALIZER IN (GRAPHIC EQUALIZER switch ON/OFF). . . . . 150mV/22kilohms/150mV/3.9 kilohms
Phono Overload Level (T.H.D. 0.08%, 1kHz) 130mV
Hum and Noise (IHF, short circuited, A network)
PHONO . . . . . 72dB (NORM), 65dB(MIX)
TV/AUX, TUNER, TAPE PLAY . . . . . 87dB(NORM), 76dB(MIX)
Hum and Noise (DIN, continuous power/50mW)
PHONO . . . . . 73dB/66dB(NORM)
72dB/66dB(MIX)
TV/AUX, TUNER, TAPE PLAY . . . . 86dB/67dB(NORM)
81dB/67dB(MIX)
Output (Level/Impedance)
TAPE REC . . . . . 150mV/2.2 kilohms
SPEAKERS . . . . . A, B, A+B
Frequency Response
PHONO(RIAA Equalization). . .20Hz to 20,000Hz±0.5dB
TUNER, TV/AUX, TAPE PLAY. . 10Hz to 60,000Hz $^{+3}_{0}$ dB
Muting . . . . . –20dB

Miscellaneous

Power Requirements
. . . . . AC 110/120/220/240V (switchable), 50/60Hz
Power Consumption 140W
Dimensions . . . . . 420(W) X 183(H) X 276.5(D) mm
16-9/16(W) X 7-3/16(H) X 10-7/8(D) in
Weight (without package) . . . . . 8.0kg (17 lb 10 oz)

Furnished Parts

Connecting Unit 1
DIN cord 1
Connecting Cord with Pin Plugs 1
Operating Instructions 1

NOTE:
Specifications and the design subject to possible modification without notice due to improvements.

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